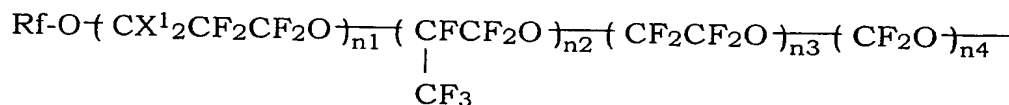


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A curable surface modifier comprising a curable fluorine-containing resin (I) which is soluble in general purpose solvents and comprises a fluorine-containing ethylenic polymer (IAB) having a moiety A and a moiety B in at least a part of the same side chain or different side chains thereof or comprises a fluorine-containing ethylenic polymer (IA) having a moiety A in at least a part of its side chain and a fluorine-containing ethylenic polymer (IB) having a moiety B in at least a part of its side chain, in which the moiety A has, at its end, one or two or more polyfluoropolyether chains P represented by the formula (1):

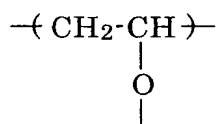


wherein n1, n2, n3 and n4 are the same or different and each is 0 or an integer of 1 or more and n1 + n2 + n3 + n4 is an integer of 7 to 40; X¹ are the same or different and each is H, F or Cl; Rf is a fluorine-containing alkyl group having 1 to 10 carbon atoms, the moiety B has one or two or more self-crosslinkable functional groups Y at its end, and

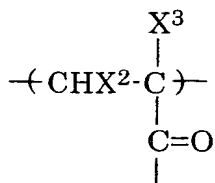
an ethylenic polymer moiety M remaining by excluding the moiety A and the moiety B from the fluorine-containing ethylenic polymer constituting the resin (I) does not contain fluorine atom or is an ethylenic polymer moiety in which a part of hydrogen atoms thereof are replaced by fluorine atoms up to a fluorine content of not more than 10 % by weight.

2. (original): The curable surface modifier of Claim 1, wherein the fluorine content of curable fluorine-containing resin (I) which is soluble in general purpose solvents is not less than 0.1 % by weight and not more than 35 % by weight.

3. (currently amended): The curable surface modifier of Claim 1-~~or 2~~, wherein the ethylenic polymer moiety M contains a structural unit of the formula (2):

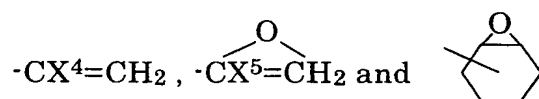


or the formula (3):



wherein X^2 is H or a bond; X^3 is H, F or CH_3 .

4. (currently amended): The curable surface modifier of claim 1 ~~any of Claims 1 to 3~~, wherein the self-crosslinkable functional group Y of the moiety B is at least one selected from the group consisting of



wherein X^4 is H, CH_3 or F; X^5 is H or CH_3 .

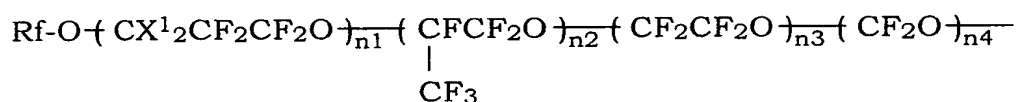
5. (currently amended): A method of modifying a surface of a substrate which comprises applying the curable surface modifier of claim 1 ~~any of Claims 1 to 4~~ on the substrate and curing.

6. (original): The surface modifying method of Claim 5, wherein the substrate is one having an antireflection film on its surface.

7. (currently amended): A surface-modified antireflection film of multi-layer structure which comprises an antireflection film and a continuous or discontinuous cured film of the curable surface modifier of claim 1 ~~any of Claims 1 to 4~~ which is formed directly on the antireflection film.

8. (original): A curable composition for surface modification which is crosslinkable with active energy rays and comprises:

(a) a curable fluorine-containing resin (I) which is soluble in general purpose solvents and comprises a fluorine-containing ethylenic polymer (IAB) having a moiety A and moiety B in at least a part of the same side chain or different side chains thereof or comprises a fluorine-containing ethylenic polymer (IA) having a moiety A in at least a part of its side chain and a fluorine-containing ethylenic polymer (IB) having a moiety B in at least a part of its side chain, in which the moiety A has, at its end, one or two or more polyfluoropolyether chains P represented by the formula (1):

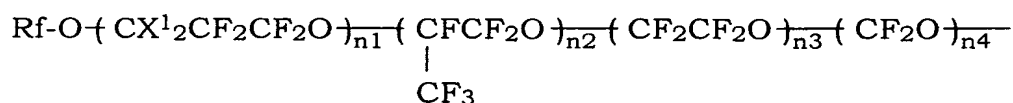


wherein n_1 , n_2 , n_3 and n_4 are the same or different and each is 0 or an integer of 1 or more and $n_1 + n_2 + n_3 + n_4$ is an integer of 7 to 40; X^1 are the same or different and each is H, F or Cl; Rf is a fluorine-containing alkyl group having 1 to 10 carbon atoms, the moiety B has one or two or more self-crosslinkable functional groups Y at its end, and an ethylenic polymer moiety M remaining by excluding the moiety A and the moiety B from the fluorine-containing ethylenic polymer constituting the resin (I) does not contain fluorine atom or

is an ethylenic polymer moiety in which a part of hydrogen atoms thereof are replaced by fluorine atoms up to a fluorine content of not more than 10 % by weight, and
(b) an active energy curing initiator.

9. (original): A curable composition for surface modification which is crosslinkable with active energy rays and comprises:

(a) a curable fluorine-containing resin (I) which is soluble in general purpose solvents and comprises a fluorine-containing ethylenic polymer (IAB) having a moiety A and moiety B in at least a part of the same side chain or different side chains thereof or comprises a fluorine-containing ethylenic polymer (IA) having a moiety A in at least a part of its side chain and a fluorine-containing ethylenic polymer (IB) having a moiety B in at least a part of its side chain, in which the moiety A has, at its end, one or two or more polyfluoropolyether chains P represented by the formula (1):



wherein n1, n2, n3 and n4 are the same or different and each is 0 or an integer of 1 or more and n1 + n2 + n3 + n4 is an integer of 7 to 40; X¹ are the same or different and each is H, F or Cl; Rf is a fluorine-containing alkyl group having 1 to 10 carbon atoms, the moiety B has one or two or more self-crosslinkable functional groups Y at its end, and

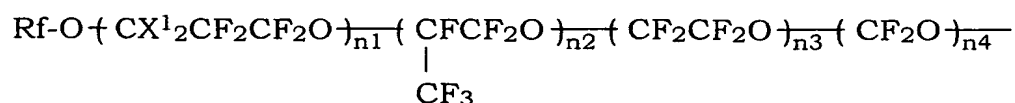
an ethylenic polymer moiety M remaining by excluding the moiety A and the moiety B from the fluorine-containing ethylenic polymer constituting the resin (I) does not contain fluorine atom or is an ethylenic polymer moiety in which a part of hydrogen atoms thereof are replaced by fluorine atoms up to a fluorine content of not more than 10 % by weight,

(b) an active energy curing initiator, and

(c) at least one general purpose solvent selected from the group consisting of ketone solvents, acetic acid ester solvents and alcohol solvents or a solvent mixture containing the general purpose solvent.

10. (original): An antireflection film obtained by applying, on a substrate, a composition for forming an antireflection film which comprises:

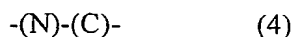
(d) a fluorine-containing resin (II) which is soluble in general purpose solvents, has a fluorine content of not less than 1 % by weight and not more than 35 % by weight and comprises a fluorine-containing ethylenic polymer (IAB) having a moiety A and moiety B in at least a part of the same side chain or different side chains thereof or a fluorine-containing ethylenic polymer (IA) having a moiety A in at least a part of its side chain, in which the moiety A has, at its end, one or two or more polyfluoropolyether chains P represented by the formula (1):



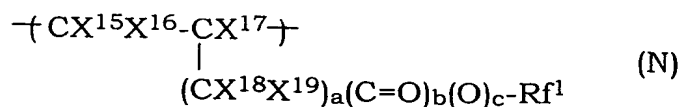
wherein n_1 , n_2 , n_3 and n_4 are the same or different and each is 0 or an integer of 1 or more and $n_1 + n_2 + n_3 + n_4$ is an integer of 7 to 40; X^1 are the same or different and each is H, F or Cl; R_f is a fluorine-containing alkyl group having 1 to 10 carbon atoms,
an ethylenic polymer moiety MA remaining by excluding the moiety A and the moiety B from the fluorine-containing ethylenic polymer constituting the resin (II) does not contain fluorine atom or is an ethylenic polymer moiety in which a part of hydrogen atoms thereof are replaced by fluorine atoms up to a fluorine content of not more than 10 % by weight, and
(e) a material for antireflection film.

11. (original): A curable resin composition comprising:

(1) a curable fluorine-containing resin (III) containing up to 100 % by mole of a fluorine-containing polymer (IIINC) which has a number average molecular weight of 500 to 1,000,000 and is represented by the formula (4):

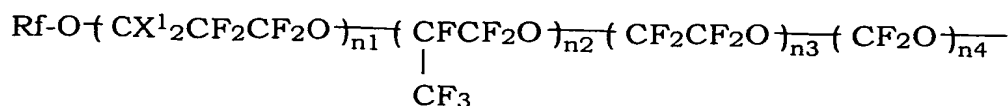


wherein the structural unit N is a structural unit derived from a fluorine-containing ethylenic monomer and represented by the formula (N).



in which X^{15} and X^{16} are the same or different and each is H or F; X^{17} is H, F, CH_3 or CF_3 ; X^{18} and X^{19} are the same or different and each is H, F or CF_3 ; Rf^1 is an organic group in which 1 to 3 Y^1 or Y^2 (Y^1 is a monovalent organic group having 2 to 10 carbon atoms and an ethylenic carbon-carbon double bond at its end and Y^2 is a monovalent organic group having 2 to 100 carbon atoms and 1 to 5 crosslinkable cyclic ether structures, in which hydrogen atoms may be replaced by fluorine atoms) are bonded to a fluorine-containing alkyl group having 1 to 40 carbon atoms or a fluorine-containing alkyl group having 2 to 100 carbon atoms and ether bond; a is 0 or an integer of from 1 to 3; b and c are the same or different and each is 0 or 1, the structural unit C is a structural unit derived from a monomer copolymerizable with the fluorine-containing ethylenic monomer providing the structural unit N, and the structural units N and C are contained in amounts of from 0.1 to 100 % by mole and from 0 to 99.9 % by mole, respectively, and

(2) a fluorine-containing resin (II) which is soluble in general purpose solvents, has a fluorine content of not less than 1 % by weight and not more than 35 % by weight and comprises a fluorine-containing ethylenic polymer (IAB) having a moiety A and moiety B in at least a part of the same side chain or different side chains thereof or a fluorine-containing ethylenic polymer (IA) having a moiety A in at least a part of its side chain, in which the moiety A has, at its end, one or two or more polyfluoropolyether chains P represented by the formula (1):



wherein n1, n2, n3 and n4 are the same or different and each is 0 or an integer of 1 or more and n1 + n2 + n3 + n4 is an integer of 7 to 40; X¹ are the same or different and each is H, F or Cl; Rf is a fluorine-containing alkyl group having 1 to 10 carbon atoms, an ethylenic polymer moiety MA remaining by excluding the moiety A and the moiety B from the fluorine-containing ethylenic polymer constituting the resin (II) does not contain fluorine atom or is an ethylenic polymer moiety in which a part of hydrogen atoms thereof are replaced by fluorine atoms up to a fluorine content of not more than 10 % by weight.

12. (currently amended): A method of forming a cured article which comprises; coating a liquid composition comprising:

- (i) the material (e) for antireflection film of Claim 10 ~~or the curable fluorine-containing resin (III) of Claim 11,~~
- (ii) the fluorine-containing resin (II) of Claim 10, and
- (iii) a solvent;

drying to form a coating film; and curing the coating film.

13. (original): The method of Claim 12, wherein the cured article is an antireflection film.

14. (new): A. method of forming a cured article which comprises; coating a liquid composition comprising:

(i) the curable fluorine-containing resin (III) of Claim 11, and

(ii) a solvent;

drying to form a coating film; and

curing the coating film.

15. (new): The method of Claim 14, wherein the cured article is an antireflection film.